

CLAIMS

1. A scanning device for reading bar code symbols comprising:
 - a housing having a substantially horizontal surface with a substantially horizontal window and a substantially vertical surface having a substantially vertical window;
 - a first polygon mirror and a first stationary mirror array;
 - a first motor for rotating said first polygon mirror;
 - a first light source for generating a first light beam that reflects off said first polygon mirror to project a first plurality of scan lines through said substantially horizontal window;
 - a second polygon mirror and a second stationary mirror array;
 - a second motor independent of the first motor for rotating said second polygon mirror;
 - a second light source for generating a second light beam that reflects off said second polygon mirror to project a second plurality of scan lines through said substantially vertical window; and
 - a plurality of sensors for detecting the intensity of light from the first and second plurality of scan lines reflected by a bar code symbol and for generating electrical signals proportional to the intensity of said reflected light.

2. The optical scanner of claim 1, further comprising:

a single microprocessor for decoding the electrical signals from the plurality of sensors.
3. The optical scanner of claim 2, further comprising signal processing circuitry and wherein the microprocessor and signal processing circuitry are disposed on a single printed circuit board.
4. The optical scanner of claim 1, further comprising:

an indicator for indicating that said substantially vertical window is to be used when a component related to said first light source fails and for indicating that said substantially horizontal window is to be used when a component related to said second light source fails.
5. The optical scanner of claim 1, wherein said first motor has a substantially vertical axis of rotation and said second motor has a substantially horizontal axis of rotation.

6. The optical scanner of claim 1, wherein said first plurality of scan lines and said second plurality of scan lines are configured to scan the front and back of a package in the direction of travel across the scanner.
7. The optical scanner of claim 1, wherein said first light source and said second light source are focused differently.
8. The optical scanner of claim 1, wherein each of the light sources are lasers operating at less than full power.
9. The optical scanner of claim 1, wherein air circulated by at least one of said first polygon mirror and said second polygon mirror is used to cool at least one of said first light source and said second light source.
10. The optical scanner of claim 1, wherein said first light source and said second light source are situated in substantially low positions within said housing.

11. The optical scanner of claim 1, wherein said second polygon mirror is situated above the second stationary mirror array.
12. The optical scanner of claim 1, wherein said second polygon mirror is situated close to the second stationary mirror array to allow a scan pattern produced by said second light beam to grow rapidly.
13. The optical scanner of claim 1, wherein all the second plurality of scan lines are each reflected only once off the second stationary mirror array.
14. The optical scanner of claim 1, wherein said first motor and said second motor rotate at different speeds.
15. A fixed-mount omnidirectional scanner comprising:
 - at least one window;
 - a scanning mechanism for scanning a bar code and producing a first electrical signal corresponding thereto;

a decoder for decoding same; and

a connector for receiving a second electrical signal from an undecoded hand-held scanner corresponding to a scanned bar code and for applying the second electrical signal to said decoder for decoding same.

16. The fixed-mount omnidirectional scanner of claim 15, wherein said decoder selects the second electrical signal for decoding and blocks the first electrical signal when a scan is initiated on the hand-held scanner.

17. The fixed-mount omnidirectional scanner of claim 16, wherein said scanning mechanism has a first light source and wherein the scanning mechanism turns off the first light source when a scan is initiated by the hand-held laser scanner.

18. A fixed-mount omnidirectional scanner comprising:

at least one window;

a scanning mechanism for scanning a bar code and producing a first electrical signal corresponding thereto;

a decoder for decoding same; and

a docking well for receiving a second electrical signal from an undecoded hand-held scanner corresponding to a scanned bar code and for applying the second electrical signal to said decoder for decoding same.

19. A fixed-mount omnidirectional scanner comprising:

at least one window;

a scanning mechanism for scanning a bar code and producing a first electrical signal corresponding thereto; and

a base station for receiving a second electrical signal from a cordless scanner.